

MODEL SCV-3 CHECK VALVE PRODUCT MANUAL

Thank you very much for choosing the Yoshitake's product. To ensure the correct and safe use of the product, please read this manual before use. This manual shall be kept with care for future references. The symbols used in this manual have the following meanings.



	Warning	This symbol indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.
	Caution	This symbol indicates a hazardous situation that, if not avoided, may result in minor or moderate injury or may result in only property damage.

Table of Contents

Usage of the Product.....	1
1. Features.....	1
2. Specifications	1
3. Structure, Dimensions and Weights	1-2
4. Pressure loss	2
5. Installation	3
5.1 Precaution for installation	3
6. Operating procedure	3
6.1 Precaution for operating procedure	3
7. Maintenance	4
7.1 Troubleshooting	4
7.2 Precaution for maintenance	4
8. Connectable flange standard table	4
9. Bundled parts	5
Warranty Information	

YOSHITAKE

Usage of the Product

The SCV-3 check valve is to prevent backflow of fluid. It is widely used in steam pipelines or cold and hot water pipelines.

1. Features

1. Flangeless wafer type applicable for various flange standards.
2. Can be connected in any posture (horizontal or vertical).

2. Specifications

Model	SCV-3
Nominal size	15A-100A
Application	Steam, Cold and hot water
Maximum pressure	2.0 MPa
Applicable temperature	5-220 °C
Installation posture	Installable in any orientation
Connection	Flangeless (wafer type) See "8. Connectable flange standard table" on Page 4
Minimum valve opening pressure	0.003 MPa
Body	SCS14A
Disc	SCS14A

* The product cannot be disassembled.

* Since a small amount of fluid leaks out of the product, it cannot be used for applications requiring complete closing.

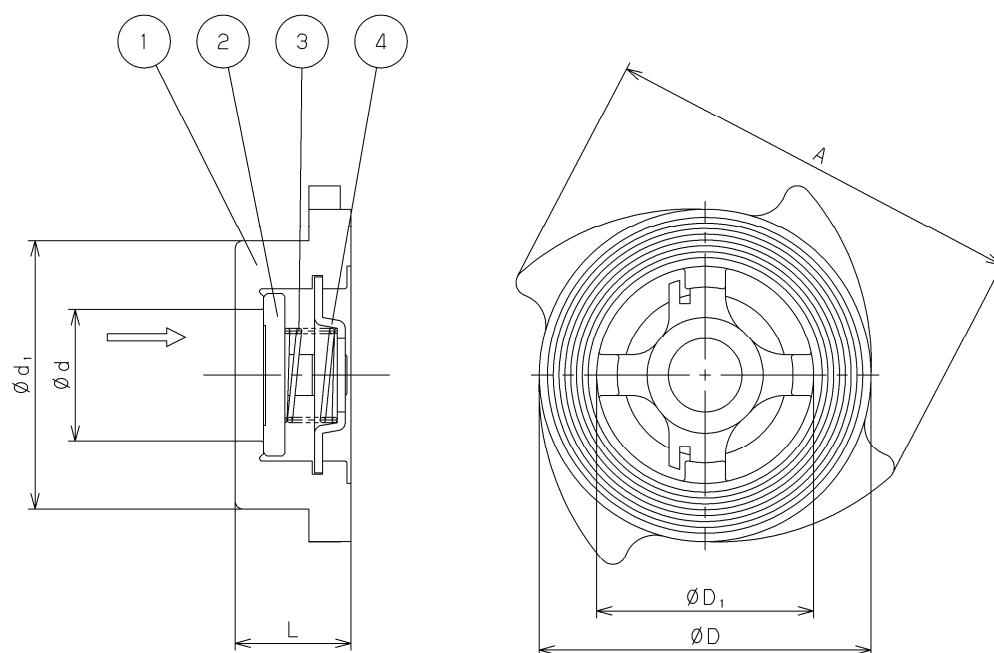


Caution

Please confirm that the indications on the product correspond with the specifications of the ordered product model before use.

* If they are different, do not use the product and contact us.

3. Structure, Dimensions and Weights



No.	Part name
1	Body
2	Disc
3	Spring
4	Spring Plate

Nominal size	(mm)						
	ϕd	ϕd_1	L	ϕD	ϕD_1	A	Weight (kg)
15A	15	35	16	43	28	63	0.2
20A	20	45	19.5	53	35	69.5	0.3
25A	25	51	22	63	41.5	80.5	0.4
32A	32	60.5	28	72.5	49.5	90.5	0.7
40A	40	70	31.5	82	57.5	101	0.9
50A	50	90	40	95.5	76	115	1.5
65A	65	102	45	116	87	142	2.2
80A	80	121	50	129.5	105.5	153.5	2.9
100A	100	145	60	154.5	128	180	4.5

Fig.1 Structure, dimensions and weights

4. Pressure loss

Fluid: water

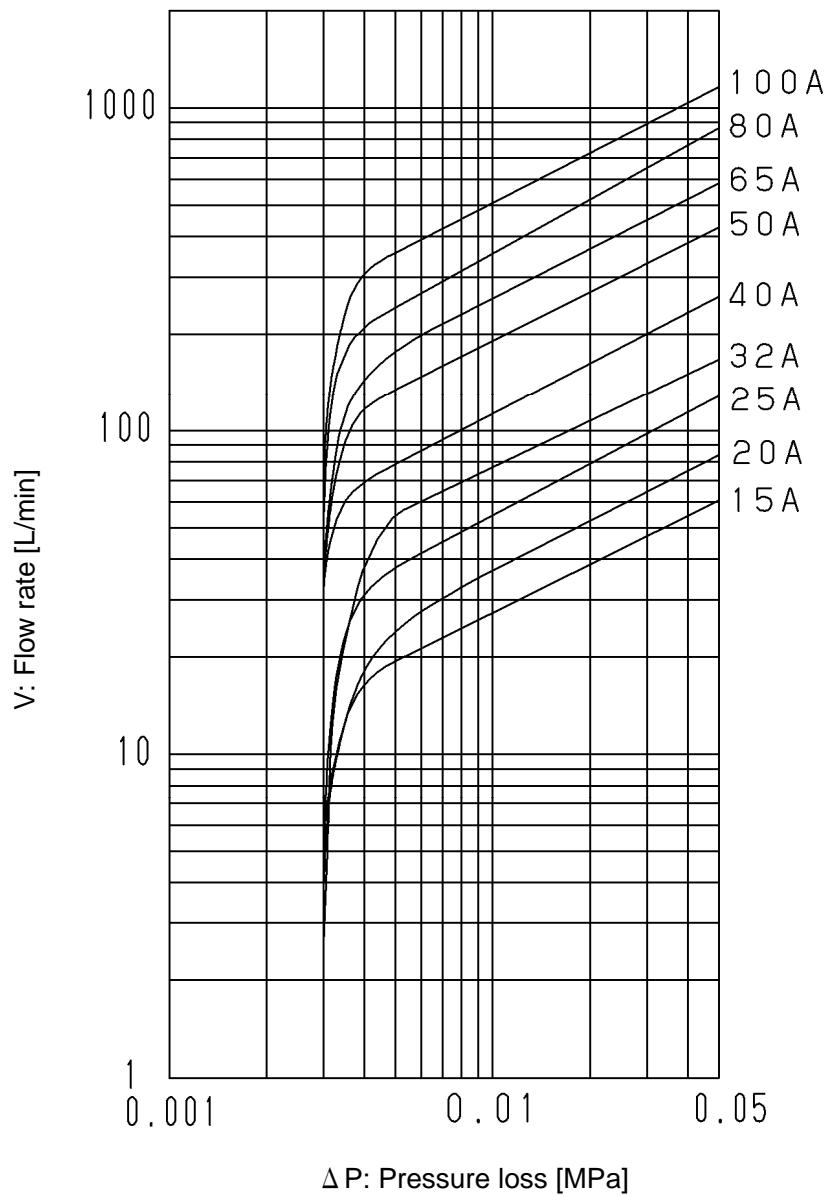


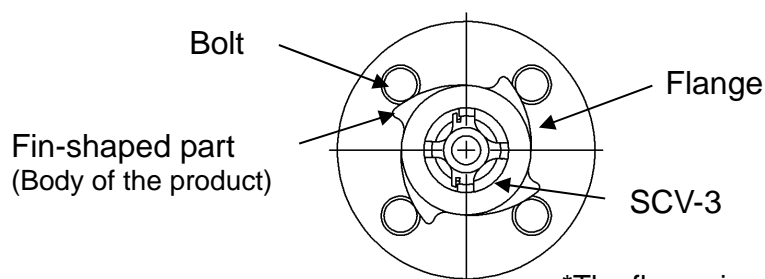
Fig. 2 Pressure loss chart

5. Installation

5.1 Precaution for installation

Caution

1. Before connecting the product in the piping, be sure to remove foreign substances and scale from the piping.
* Failure to follow this notice causes valve seat leakage due to the ingress of foreign substances and scale into the product.
2. To install the product, check the direction of the product so that the fluid flowing and the arrow marked on the product are in the same direction.
* Wrong direction prevents fluid from flowing.
3. Connect the product to the piping so that excessive load, torque or vibration cannot be applied to the product. Be sure to connect the product to piping firmly.
* Failure to follow this notice may cause fluid leakage and result in burns or property damage.
4. On installation, align center part of the product with that of flange by making fin-shaped part contact with bolt as indicated in the figure below.



*The flange is not included in the bundled parts.

6. Operating procedure

6.1 Precaution for operating procedure

Caution

- Before leading fluid, make sure that there is no danger when the fluid flows to the end of piping.
- * If tightening is not secured, hot fluid may spout out and result in burns.
 - * Fluid outflow may cause property damage.

7. Maintenance

7.1 Troubleshooting

Trouble	Cause	Remedy
Fluid does not flow.	1. Contact surface of body [1] and disc [2] is stuck.	1. Replace the product if disc [2] does not move.
	2. Installation direction is wrong.	2. Confirm the arrow on the product and install it correctly.
Fluid flows back.	1. Contact surface of body [1] and disc [2] is worn away.	1. Replace the product.
	2. Internal parts are damaged.	2. Replace the product.

7.2 Precaution for maintenance



Warning

Completely discharge the internal pressure from the valves, lines and equipment, and cool the valve down to a level where you can touch it with bare hands before disassembly and inspection.

* Failure to do so may result in injury or burns due to residual pressure or spillage around the valve.

8. Connectable flange standard table

SCV-3 Nominal size	JIS				ASME·JPI				PN(EN/DIN)				
	5K	10K*	16K	20K	125lb	150lb	250lb	300lb	6	10	16	25	40
15A	○	○	○	○	×	○	×	○	○	○	○	○	○
20A	○	○	○	○	×	○	×	○	○	○	○	○	○
25A	○	○	○	○	○	○	○	○	○	○	○	○	○
32A	○	○	○	○	○	○	○	○	○	○	○	○	○
40A	×	○	○	○	○	○	○	○	○	○	○	○	○
50A	×	○	○	○	○	○	○	○	○	○	○	○	○
65A	○	○	○	○	○	○	○	○	○	○	○	○	○
80A	×	○	○	○	○	○	○	○	○	○	○	○	○
100A	×	○	○	○	○	○	○	○	×	○	○	○	○

■"○" in the above table means connectable flange to the product. "×" means not connectable.

* Bundled bolts and nuts are for JIS 10K flange only.

9. Bundled parts

The bolts, nuts and gaskets used for SCV-3, have shipped with the product as a bundled part as follows. Please check the included contents. Refer to Table 1 below for dimensions and quantities.

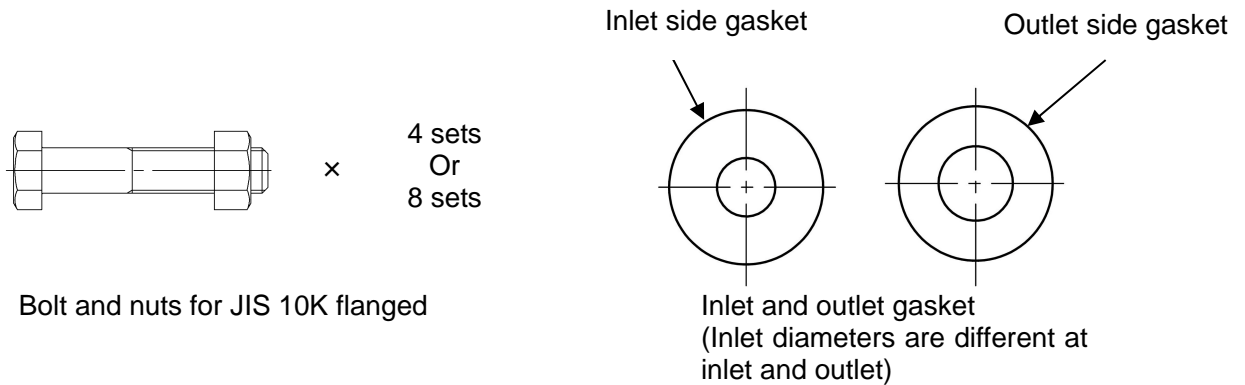


Table 1 Dimensions and Quantities of Bolts, Nuts and Gaskets

SCV-3 Nominal size	Inlet side gasket				Outlet side gasket				gasket material	Nominal bolt dimension xlength	Qty
	Outer diameter	Inner diameter	Thickness	Qty	Outer diameter	Inner diameter	Thickness	Qty			
15A	φ 58	φ 22	1.5	1	φ 58	φ 28	1.5	1	Non Asbestos	M12x70	4
20A	φ 63	φ 28			φ 63	φ 35				M12x75	4
25A	φ 74	φ 35			φ 74	φ 42				M16x80	4
32A	φ 84	φ 43			φ 84	φ 50				M16x90	4
40A	φ 89	φ 49			φ 89	φ 58				M16x95	4
50A	φ 104	φ 61			φ 104	φ 77				M16x100	4
65A	φ 124	φ 84			φ 124	φ 88				M16x110	4
80A	φ 134	φ 90			φ 134	φ 106				M16x120	8
100A	φ 159	φ 115			φ 159	φ 129				M16x130	8

*The bundled bolts and nuts are not made of stainless steel.

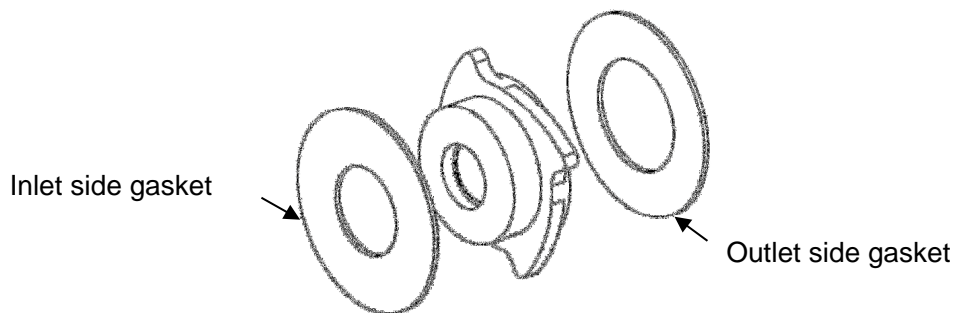
*The inlet gasket is equivalent to JIS B2404 Table4 10K dimensions.

*The flange is not included in the bundled parts.

⚠ Caution

- As shown in Table 1, the Inlet diameters of the gasket differ between the inlet side and the outlet side. Refer to Table 1 to avoid piping mistakes.

* Failure to follow this notice causes external leakage.



- Please be sure to use the bundled gasket when installing the piping. Gasket can be used up to 2.0 MPa.
- Bundled bolts and nuts are for JIS 10K flange only. Please prepare the bolts and nuts for other than JIS 10K flange by user themselves.